

IN THE CLAIMS

Please cancel claims 1-10 without prejudice, and add claims 11-24 as follows:

Claims 1-10. (Canceled)

1 11. (New) A communication system comprising a transmitter and a
2 receiver, the transmitter comprising a digital input, a coding
3 device for generating data bits for transmission, and means for
4 transmitting the data bits during respective frames of a
5 transmission channel, the coding device comprising a coding circuit
6 for generating a coded output having a greater number of bits than
7 the digital input, an interleaving circuit for operating on the
8 coded output to generate a data block comprising a plurality of
9 interleaved words, and a rate matching circuit for adjusting the
10 number of bits in the data block, the rate matching circuit having
11 means for adjusting the number of bits in the data block using a
12 rate matching pattern to provide data bits, and means for selecting
13 the rate matching pattern depending on a bit deletion/repetition
14 rate, wherein a bit deletion/repetition pattern is selected to
15 ensure that the deleted or repeated bits are not required to enable
16 all bits from the digital input to be reconstructed, and the

17 receiver comprising means for receiving the data bits and a data
18 reconstruction circuit having means for adjusting the number of bits
19 in the data block to reverse the action of the rate matching
20 circuit, thereby reconstructing the interleaved words, a de-
21 interleaving circuit having means for generating each of the
22 plurality of interleaved words, and a channel decoder, the data
23 reconstruction circuit having means for selecting the rate matching
24 pattern depending on the characteristics of the coding device.

1 12.(New) A system as claimed in claim 11, wherein said means
2 for selecting select the rate matching pattern in such a way that
3 all bits of the digital input can be derived from the remainder of
4 the bits in successive interleaved blocks.

1 13.(New) A system as claimed in claim 11, wherein the rate
2 matching pattern for each interleaved word within the data block is
3 offset with respect to the adjacent interleaved word or words within
4 the block.

1 14.(New) A system as claimed in claim 11, wherein said means
2 for selecting select the rate matching pattern as a function of the
3 interleaving depth of the interleaving circuit.

1 15.(New) A system as claimed in claim 11, wherein the coding
2 circuit applies convolutional coding and said means for selecting
3 select the rate matching pattern as a function of the constraint
4 length of the convolutional code.

1 16.(New) A system as claimed in claim 11, wherein the
2 transmitter comprises additional coding devices, each for coding a
3 respective digital input, and a multiplexer for combining output
4 data words of said coding device and said additional coding devices
5 for subsequent transmission by the transmission means on a single
6 transmission channel.

1 17.(New) A system as claimed in claim 16, wherein the outputs
2 of said coding device and said additional coding devices are
3 selected to have different data rates, the combined data rate
4 corresponding to the channel capacity of the transmission channel.

1 18.(New) A system as claimed in claim 11, wherein the rate
2 matching pattern forms a matrix including change bits that indicate
3 change of corresponding bits of said interleaved words within said
4 data block, wherein each row of said matrix includes a maximum of
5 one of said change bits.

1 19.(New) A system as claimed in claim 11, wherein said coding
2 circuit has one of a fixed code rate and a predetermined number of
3 rates for a variable data source.

1 20.(New) A system as claimed in claim 11, wherein said
2 interleaving circuit is not adaptive.

1 21.(New) A system as claimed in claim 11, wherein said
2 interleaving circuit has a constant bit rate.

1 22.(New) A system as claimed in claim 11, wherein said coding
2 circuit has one of a fixed code rate and a predetermined number of
3 rates for a variable data source, and wherein said interleaving
4 circuit is not adaptive.

1 23.(New) A system as claimed in claim 11, wherein said rate
2 matching circuit alters a coding rate of said coding circuit.

1 24.(New) A method of operating a communication system
2 comprising a transmitter and a receiver, the method comprising the
3 transmitter operating on the digital input to generate a coded
4 output having a greater number of bits than the digital input,
5 operating on the coded output to generate a data block comprising a

6 plurality of interleaved words and adjusting the number of bits in
7 the data block using a rate matching pattern to provide data bits
8 for transmission during respective frames of a transmission channel,
9 and the receiver receiving the data bits, adjusting the number of
10 bits in the data block to reverse the action of the rate matching
11 operation, thereby reconstructing the interleaved words, and de-
12 interleaving and decoding the interleaved words to reverse the
13 actions of the interleaving and coding operations, wherein the rate
14 matching pattern is selected depending on a bit deletion/repetition
15 rate, wherein a bit deletion/repetition pattern is selected to
16 ensure that the deleted or repeated bits are not required to enable
17 all bits from the digital input to be reconstructed.